Opioid-Free Tonsillectomy Protocol in the Pediatric Patient: A Feasibility Study

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Abstract:

Objective: To assess the perioperative morbidity, immediate recovery, and postoperative complications associated with an opioid and opioid-free anesthetic and analgesic protocol for pediatric tonsillectomy patients.

Methods: Retrospective chart review comparing perioperative experiences of pediatric tonsillectomy patients who received narcotic pain medications (opioid group) with patients who did not receive narcotic pain medication (non-opioid group). A total of 75 patients were enrolled in this study, 36 in the opioid group and 39 in the opioid-free group.

Results: There were no significant differences in the distributions of age, sex, race, and indications for surgery between the two groups. No significant differences between the two groups on Aldrete (average) pain scores, Aldrete (average) emetic symptoms, FLACC (average) pain scores, and oral intake in the post-anesthesia care unit (PACU). Patients where FLACC (average) pain scores were recorded, a higher proportion of minimal pain (FLACC score between 0 and 2) was observed in patients who received opioids than in patients who did not receive opioids (80.9% versus 46.7%, p=0.01). There was no significant difference between the groups in several measured postoperative outcomes, including postoperative bleeding, unexpected postoperative office visits, and postoperative emergency room (ER) visits. The opioid group had a longer length of stay in the PACU (median = 90.5 minutes) when compared to the length of stay for patients in the opioid-free group (median = 75.0 minutes), although, this was not statistically significant (p=0.07).

Conclusion: This study suggests that non-opioid modalities both intraoperatively and postoperatively may have similar effectiveness in comparison to protocols that involve opioids for both anesthesia and analgesia in pediatric tonsillectomy patients.